

## **ABSTRACT**

The present invention discloses a method and apparatus for separating particles and dissolved matter from a fluid stream. Specifically, the present invention includes a first pressure  
5 source which transports untreated fluid into a separator annulus with a filter element disposed therein. The untreated fluid is placed under appropriate pressure sufficient to produce turbulent flow, increased particle kinetics and/or cavitation physics allowing the desired fluid to penetrate and pass into and through the filter media. The filtered fluid is then transported to a collection  
10 tank. The contaminant particulate matter retained on the exterior of the filter media may be removed by the instantenous reverse pressurization of the separator annulus by a second pressure source thereby removing the contaminant particles away from contact with the filter media, and which may then be transported to a waste collection tank or a concentrator for further treatment.